May 7, 2003

Mr. James Charette Town of Millinocket 197 Penobscot Avenue Millinocket, Maine 04462

RE: Maine Waste Discharge License (WDL) Application #W002680-5L-E-R

Permit Compliance System #ME0100803

Final License

Dear Mr. Charette:

Enclosed please find a copy of your **final** Maine WDL which was approved by the Department of Environmental Protection. Please read the license and its attached conditions carefully. You must follow the conditions in the license to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "Appealing a Commissioner's Licensing Decision."

We would like to make you aware of the fact that your monthly Discharge Monitoring Reports (DMR) may not reflect the revisions in this licensing action for several months however, you are required to report applicable test results for parameters required by this licensing action that do not appear on the DMR. In addition, we would like to remind you that the NPDES permit issued to the Town of Millinocket by the U.S. Environmental Protection Agency remains in effect and you must comply with all terms and conditions of permit.

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood Division of Water Resource Regulation Bureau of Land and Water Quality

Enc

cc: Tanya Hovell, DEP/EMRO

Ted Lavery, USEPA

IN THE MATTER OF

TOWN OF MILLINOCKET) PROTECTION AND IMPROVEMENT
MILLINOCKET, PENOBSCOT COUNTY, ME.	OF WATERS
PUBLICLY OWNED TREATMENT WORKS)
#W002680-5L-E-R) WASTE DISCHARGE LICENSE
#ME0100803 APPROVAL) RENEWAL

Pursuant to the provisions of 38 M.R.S.A., Section 414-A et seq., the Department of Environmental Protection (Department) has considered the application of the TOWN OF MILLINOCKET (Town), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

The applicant has applied to the Department for renewal of Department Waste Discharge License (WDL) #W002680-46-D-R which was issued on April 30, 1997 and expired on April 30, 2002. The 4/30/97 WDL authorized the discharge of up to a monthly average flow of 2.33 million gallons per day (MGD) of secondary treated sanitary waste waters to the West Branch of the Penobscot River, Class C, in Millinocket, Maine. It is noted the licensee has requested monitoring frequency reductions for biochemical oxygen demand, total suspended solids and *E. coli* bacteria (3/Week to 2/Week), and total residual chlorine (1/Day to 5/Week).

LICENSE SUMMARY

This licensing action is similar to the 4/30/97 WDL action in that it is;

- 1. Carrying forward the monthly average flow limit of 2.33 MGD.
- 2. Carrying forward the monthly average, weekly average and daily maximum technology based mass and concentration limits for biochemical oxygen demand (BOD₅) and total suspended solids (TSS).
- 3. Carrying forward the monthly average and daily maximum water quality based concentration limits for *E. coli* bacteria.
- 4. Carrying forward the daily maximum technology based concentration limit for total residual chlorine.
- 5. Carrying forward the screening level monitoring requirements for whole effluent toxicity (WET) testing and chemical specific testing.

LICENSE SUMMARY (cont'd)

This licensing action is different than the 4/17/97 WDL action in that it is;

- 6. Establishing a requirement for achieving a minimum of 85% removal for BOD5 and TSS.
- 7. Revising the daily maximum BPT pH range limit from 6.0 8.5 standard units to 6.0 9.0 standard units based on a new Department regulation.
- 8. Eliminating surveillance level monitoring requirements for WET testing and chemical specific testing.
- 9. Establishing a seasonal 1/Week monitoring requirement for total phosphorus.
- 10. Reducing the monitoring frequency for BOD5, TSS, and E. coli bacteria from 3/Week to 2/Week.
- 11. Establishing a provision for the reduction of total residual chlorine from 1/Day to 5/Week provided the facility installs a mechanism to monitor and track TRC levels on the two days of the week no personnel are present at the waste water treatment facility.
- 12. Establishing a requirement to develop or update the Wet Weather Management Plan for the facility.
- 13. Establishing a requirement to maintain an up-to-date Operations and Maintenance Plan for the facility.

CONCLUSIONS

BASED on the findings in the attached Fact Sheet dated April 4, 2003 and subject to the Conditions listed below, the Department makes the following CONCLUSIONS:

- 1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
- 2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
- 3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:
 - a. Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - b. Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;
 - c. The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - d. Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and
 - e. Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
- 4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the application of the TOWN OF MILLINOCKET, to discharge up to a monthly average flow of 2.33 million gallons per day (MGD) of secondary treated sanitary waste waters to the West Branch of the Penobscot River, Class C, in Millinocket, Maine. The discharges shall be subject to the attached conditions and all applicable standards and regulations:

- 1. Standard Conditions of Approval for POTW Waste Discharge Licenses dated July 16, 1996, copy attached.
- 2. The attached Special Conditions, including any effluent limitations and monitoring requirements.
- 3. This license expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA MAINE THIS

DONE AND DATED AT AUGUSTA, MA	INE, THIS DA	AY OF	, 2003.
COMMISSIONER OF ENVIRONMENTA	L PROTECTION		
BY: Dawn Gallagher, Commissioner			
PLEASE NOTE ATTACHED SHEET FOR	C GUIDANCE ON A	PPEAL PRC	CEDURES
Date of initial receipt of application	December 19,	2001	·
Date of application acceptance	December 26, 2	2001	<u>.</u>

This Order prepared by GREGG WOOD, BUREAU OF LAND & WATER QUALITY W26805le 5/5/03

Date filed with Board of Environmental Protection

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning the effective date of the license and lasting through license expiration, the licensee is authorized to discharge treated waste waters to the West Branch of the Penobscot River. Such treated waste water discharges shall be limited and monitored by the licensee as specified below.

SECONDARY TREATED WASTE WATERS - OUTFALL #001

Effluent Characteristic	Discharge Limitations					Monitoring Requirements		
	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Monthly Average as specified	Weekly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow [50050]	2.33 MGD _[03]						Continuous	Recorder [RC]
Biochemical Oxygen Demand (BOD ₅) [00310]	583 lbs/Day	874 lbs/Day	972 lbs/Day	30 mg/L [19]	45 mg/L _[19]	50 mg/L [19]	2/Week [02/07]	24 Hr. Composite _[24]
BOD % Removal ⁽¹⁾ [81010]				85%			1/Month _[01/30]	Calculate _[CA]
Total Suspended Solids (TSS) [00530]	583 lbs/Day	874 lbs/Day	972 lbs/Day	30 mg/L [19]	45 mg/L _[19]	50 mg/L [19]	2/Week [02/07]	24 Hr. Composite [24]
TSS % Removal ⁽¹⁾ [81011]				85%			1/Month _[01/30]	Calculate _[CA]
E. coli Bacteria (2) _[31633]				142/100 ml ⁽³⁾		949/100 ml	2/Week [02/07]	Grab _[GR]
Total Residual Chlorine ⁽²⁾ Beginning upon issuance						1.0 mg/L [19]	1/Day ⁽⁴⁾ [01/01]	Grab _[GR]
Beginning upon installation of monitoring equipment _[50060]						1.0 mg/L _[19]	5/Week ⁽⁴⁾ [05/07]	Grab _[GR]

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Effluent Characteristic	Discharge Limitations					Monitoring Requirements		
	Monthly□ <u>Av</u> erage	Weekly□ <u>Aver</u> age	Daily□ <u>Maximu</u> <u>m</u>	Monthly□ <u>Av</u> erage	Weekly□ <u>Av</u> erage	Daily□ <u>Maxi</u> mum	Measurement□ Frequency	Sample□ <u>Type</u>
<u>Total Phosphorus</u> [00665] (June I – September 30)	Report lbs/day _[26]		Report lbs/day _[26]	Report mg/L _[19]		Report mg/L _{[19}	1/Week _[01/07]	24 Hr. Composite [24]
pH (Std. Units) [00400]						6.0-9.0 [12]	3/Week [03/07]	Grab _[GR]

SCREENING LEVEL TESTING – Beginning twelve months prior to license expiration.

Effluent Characteristic	Discharge Limitations						Monitoring Requirements	
	Monthly□ <u>A</u>	Weekly□ <u>A</u>	Daily□ <u>Max</u>	Monthly□ <u>Av</u>	Weekly□ <u>Ave</u>	Daily□ <u>Maxi</u>	Measurement□ <u>F</u>	Sample □ <u>Type</u>
	<u>verage</u>	<u>verage</u>	<u>imum</u>	<u>erage</u>	<u>rage</u>	<u>mum</u>	<u>requency</u>	
Whole Effluent Toxicity (WET) (5)								
A-NOEL								
Ceriodaphnia dubia [ТДАЗВ]						Report % [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TDA6F]						Report % [23]	1/Year [01/YR]	Composite [24]]
								-
C-NOEL								
Ceriodaphnia dubia [тврзв]						Report % [23]	1/Year [01/YR]	Composite [24]
Salvelinus fontinalis [TBQ6F]						Report % [23]	1/Year [01/YR]	Composite [24]
	_ 							
Chemical Specific ⁽⁶⁾						Report ug/L	1/Quarter	Composite/
[50008]						[28]	[01/90]	Grab
1							, ,	[24/GR)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

Sampling Locations:

Influent sampling for BOD₅ and TSS shall be sampled in the wet well of the last pump station prior to being conveyed to the treatment facility.

Effluent sampling for waste water receiving secondary treatment (Outfall #001A) and shall be sampled (composite) for BOD₅, TSS, whole effluent toxicity and chemical specific testing after the final lagoon but before the chlorine contact chamber. Grab samples for total residual chlorine, pH, settleable solids and *E. coli* bacteria are to be collected after the chlorine contact chamber. It is noted the Department is currently undertaking a study, with the cooperation of a number a licensee/permittee's with lagoon systems, to determine whether composite or grab sampling is the most appropriate sample type for said treatment systems. Once the study is completed, the Department may reopen this license to modify the sample type and or sampling location for parameters regulated by this license.

Any change in sampling location(s) must be reviewed and approved by the Department in writing.

Sampling – Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Service.

- 1. **Percent removal** For secondary treated waste waters, the facility shall maintain a minimum of 85 percent removal of both BOD₅ and TSS. Compliance with the limitation is based on a twelve-month rolling average. Calendar monthly average percent removal values shall be calculated based on influent and effluent concentrations. The licensee is not required to include monthly average percent removal values in the twelve-month rolling average calculation when the influent concentration for said month(s) is less than 200 mg/L. For the purposes of this licensing action, the twelve-month rolling average calculation is based on the most recent twelve months of data when the influent concentrations are greater than or equal to 200 mg/L.
- 2. *E. coli* bacteria and total residual chlorine (TRC) Limits are seasonal and apply between May 15 and September 30 of each calendar year. The Department reserves the right to require disinfection on a year-round basis to protect the health and welfare of the public.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

- 3. *E. coli* bacteria The monthly average limitation is a geometric mean limitation and shall be calculated and reported as such.
- 4. **Total residual chlorine -** Beginning upon issuance of this license and lasting through the installation of a mechanism to monitor and track TRC levels on the two days of the week when personnel are not at the facility, the licensee shall monitor TRC 1/Day. The reduction in the monitoring frequency to 5/Week will only be granted after written authorization from the Department.
- 5. Whole effluent toxicity (WET) testing Definitive WET testing is a multi-concentration testing event (a minimum of five dilutions bracketing the critical acute and chronic dilution of 0.72 % and 0.16% respectively), which provides a point estimate of toxicity in terms of No Observed Effect Level, commonly referred to as NOEL or NOEC. A-NOEL is defined as the acute no observed effect level with survival as the end point. C-NOEL is defined as the chronic no observed effect level with survival, reproduction and growth as the end points.

Beginning twelve months prior to the expiration date of the license, the licensee shall initiate screening level WET tests at a frequency of once per year (in the third calendar quarter). Testing shall be conducted on the water flea (*Ceriodaphnia dubia*) and the brook trout (*Salvelinus fontinalis*). Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing.

Toxicity tests must be conducted by an experienced laboratory approved by the Department. The laboratory must follow procedures as described in the following U.S.E.P.A. methods manuals.

- a. <u>Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms</u>, 4th Edition, October 2002, EPA-821-R-02-013.
- b. <u>Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms,</u> 5th Edition, October 2002, EPA-821-R-02-012.

The licensee is also required to analyze the effluent for the parameters specified in the analytic chemistry on the form in Attachment A of this license each and every time a WET test is performed.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

6. **Priority pollutant** - (chemical specific testing pursuant to Department rule Chapter 530.5) testing are those parameters listed by the USEPA pursuant to Section 307(a) of the Clean Water Act and published a 40 CFR Part 122, Appendix D, Tables II and III

Beginning twelve months prior to the expiration date of the license, screening level chemical specific testing shall be conducted at a frequency of four per year (four consecutive calendar quarters). Chemical specific testing shall be conducted on samples collected at the same time as those collected for whole effluent toxicity tests, where applicable. Chemical specific testing shall be conducted using methods that permit detection of a pollutant at existing levels in the effluent or that achieve minimum reporting levels of detection as specified by the Department. Results shall be submitted to the Department within thirty (30) days of the permittee receiving the data report from the laboratory conducting the testing. For the purposes of DMR reporting, enter a "NODI-9" for <u>no</u> testing done this monitoring period or "1" for <u>yes</u>, testing done this monitoring period.

All mercury sampling shall be conducted in accordance with EPA's "clean sampling techniques" found in EPA Method 1669, <u>Sampling Ambient Water For Trace Metals At EPA Water Quality Criteria Levels</u>. All mercury analysis shall be conducted in accordance with EPA Method 1631, <u>Determination of Mercury in Water by Oxidation</u>, <u>Purge and Trap</u>, and Cold Vapor Fluorescence Spectrometry.

B. NARRATIVE EFFLUENT LIMITATIONS

- 1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time which would impair the usages designated by the classification of the receiving waters.
- 2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.
- 3. The discharges shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.
- 4. Notwithstanding specific conditions of this license the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. DISINFECTION

If chlorination is used as a means of disinfection, an approved chlorine contact tank providing the proper detention time consistent with good engineering practice must be utilized, followed by a dechlorination system if the Total Residual Chlorine (TRC) cannot be met by dissipation in the detention tank. The TRC in the effluent shall at no time cause any demonstrable harm to aquatic life in the receiving waters. The dose of chlorine applied shall be sufficient to leave a TRC concentration that will effectively reduce bacteria to levels below those specified in Special Condition A, "Effluent Limitations and Monitoring Requirements", above.

D. TREATMENT PLANT OPERATOR

The treatment facility must be operated by a person holding a **Grade III**, certificate pursuant to Title 32 M.R.S.A., Section 4171 et seq. All proposed contracts for facility operation by any person must be approved by the Department before the licensee may engage the services of the contract operator.

E. LIMITATIONS FOR INDUSTRIAL USERS

Pollutants introduced into the waste water collection and treatment system by a non-domestic source (user) shall not pass through or interfere with the operation of the treatment system.

F. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report (DMR) forms provided by the Department and postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month following the completed reporting period. A signed copy of the DMR and all other reports required herein shall be submitted to the following address:

Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Compliance, Engineering & Technical Assistance
106 Hogan Road
Bangor, Maine 04401

G. UNAUTHORIZED DISCHARGES

The licensee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfall 001. Discharges of waste water from any other point source are not authorized under this license, but shall be reported in accordance with Standard Condition B(5) (Bypass) of this license.

H. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the licensee shall notify the Department of the following.

- 1. Any introduction of pollutants into the waste water collection and treatment system from an indirect discharger in a primary industrial category discharging process waste water; and
- 2. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system by a source introducing pollutants into the system at the time of permit issuance. For the purposes of this section, notice regarding substantial change shall include information on:
 - (a) the quality and quantity of waste water introduced to the waste water collection and treatment system; and
 - (b) any anticipated impact caused by the change in the quantity or quality of the waste water to be discharged from the treatment system.

I. WET WEATHER FLOW MANAGEMENT PLAN

The treatment facility staff shall develop and maintain a Wet Weather Management Plan to direct the staff on how to operate the facility effectively during periods of high flow. The Department acknowledges that the existing collection system may deliver flows in excess of the monthly average design capacity of the treatment plant during periods of high infiltration and rainfall.

On or before June 1, 2003, (PCS Code 06799) the licensee shall submit to the Department for review and approval, a new or revised Wet Weather Management Plan which conforms to Department guidelines for such plans. The revised plan shall include operating procedures for a range of intensities, address solids handling procedures (including septic waste and other high strength wastes if applicable) and provide written operating and maintenance procedures during the events.

Once the Wet Weather Management Plan has been approved, the licensee shall review their plan annually and record any necessary changes to keep the plan up-to-date.

J. OPERATION & MAINTENANCE (O&M) PLAN

This facility shall have a current written comprehensive Operation & Maintenance (O&M) Plan. The plan shall provide a systematic approach by which the licensee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the licensee to achieve compliance with the conditions of this permit.

By December 31 of each year, or within 90 days of any process changes or minor equipment upgrades, the licensee shall evaluate and modify the O&M Plan including site plan(s) and schematic(s) for the waste water treatment facility to ensure that it is up-to-date. The O&M Plan shall be kept on-site at all times and made available to Department and EPA personnel upon request.

Within 90 days of completion of new and or substantial upgrades of the waste water treatment facility, the licensee shall submit the updated O&M Plan to their Department inspector for review and comment.

K. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

During the effective period of this license, the licensee is authorized to receive and introduce into the treatment process or solids handling process up to a maximum of 2,000 gallons per day of septage, subject to the following terms and conditions:

- 1. This approval is limited to methods and plans described in the application and supporting documents. Any variations are subject to review and approval prior to implementation.
- 2. At no time shall the addition of septage cause or contribute to effluent quality violations. If such conditions do exist, the introduction of septage into the treatment process or solids handling stream shall be suspended until effluent quality can be maintained.
- 3. The permittee shall maintain records which shall include, as a minimum, the following by date: volume of septage received, source of the septage (name of municipality), the hauler transporting the septage, the dates and volume of septage added to the waste water treatment influent and test results.
- 4. The addition of septage into the treatment process or solids handling stream shall not cause the treatment facilities design capacity to be exceeded. If, for any reason, the treatment process or solids handling facilities become overloaded, introduction of septage into the treatment process or solids handling stream shall be reduced or terminated in order to eliminate the overload condition.

K. DISPOSAL OF SEPTAGE WASTE IN WASTE WATER TREATMENT FACILITY

- 5. Septage known to be harmful to the treatment processes shall not be accepted. Wastes which contain heavy metals, toxic chemicals, extreme pH, flammable or corrosive materials in concentrations harmful to the treatment operation shall be refused.
- 6. Holding tank waste water shall not be recorded as septage but should be reported in the treatment facility's influent flow.

L. CHAPTER 530.5(B)(7)(c)(iii) CERTIFICATION

By December 31 of each calendar year, the licensee shall provide the Department with a certification describing any of the following that have occurred since the effective date of this license:

- 1. Increases in the number, types and flows of industrial, commercial or domestic discharges to the facility that in the judgment of the Department may cause the receiving water to become toxic.
- 2. Changes in the condition or operations of the facility that may increase the toxicity of the discharge.
- 3. Changes in storm water collection or inflow/infiltration affecting the facility that may increase the toxicity of the discharge.
- 4. Increases in the type or volume of hauled wastes accepted by the facility.
- 5. The Department reserves the right to reinstate annual (surveillance level) testing or other toxicity testing if new information becomes available that indicates the discharge may cause or have a reasonable potential to cause exceedences of ambient water quality criteria/thresholds.

M. REOPENING OF THE LICENSE FOR MODIFICATIONS

Upon evaluation of the tests results or monitoring requirements specified in Special Conditions of this licensing action, new site specific information, or any other pertinent test results or information obtained during the term of this license, the Department may, at anytime and with notice to the licensee, modify this license to; 1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded, (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.